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## BUILDINGS BULLETIN 2009-017

### Technical

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**Supersedes:** None

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**Purpose:** This document clarifies the means of determining noise output by exterior mechanical equipment when in proximity to a habitable room window, and the special inspection requirement for mechanical equipment noise.

**Related Code Section(s):** BC 1704.15.2 AC 24-232  
MC 926

**Subject(s):** Noise control, mechanical equipment; Special inspection, mechanical systems, noise

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### I. Exterior mechanical equipment noise limitations.

**Requirements of Section MC 926.** Mechanical Code section MC 926 provides the applicant two methods for determining compliance with the exterior mechanical equipment noise limitations:

- 1. Sound power level data of mechanical equipment as stated by the manufacturer.** Section MC 926 provides the octave band limits of sound power levels produced by exterior mechanical equipment in Table MC 926.1(1). Where section MC 926.1.1 makes reference to Table MC 926.1, the intent is to refer to Table MC 926.1(1). See "Clarification of Table MC 926.1(1)" below.
- 2. Sound pressure levels measured from within a habitable room.** If the sound power level data for the exterior mechanical equipment is not provided by the manufacturer, section MC 926.1.1 also permits measuring the sound output by providing limits, measured in octave bands, of the sound pressure levels as measured within the habitable room located in proximity to the exterior mechanical equipment and refers to Table MC 926.1(2) for those limits.

**Clarification of Table MC 926.1(1).** Footnote 1 provides a means of measuring exterior mechanical equipment noise where sound power level data is unavailable. The intent of Footnote 1 is to reference Table MC 926.1(2) for the sound pressure level limits when measuring exterior mechanical equipment noise from within the habitable room. Footnotes 2 and 3 of Table MC 926.1(1) also delineate the conditions to measure noise from within the habitable room, with the intent that the measurement results are for the purposes of applying Table MC 926.1(2).

**II. Special inspection of exterior mechanical equipment noise.** The special inspection requirements of Building Code section BC 1704.15.2, item 8 read, in pertinent part with emphasis added, as follows:

**BC 1704.15.2 Special Inspection of Mechanical Systems.** Inspections of mechanical systems shall include the following as applicable to the system:

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8. Noise producing mechanical equipment located within 100 feet (30 480 mm) of habitable room windows shall be tested at the equipment for compliance with the design STC rating of the equipment

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However, the Mechanical Code section that applies to the above inspection requirement, section MC 926 "Noise Control Requirements" makes no reference to the Sound Transmission Class (STC) rating. Moreover, the noise generated by exterior mechanical equipment is not measured in terms of an STC rating; that rating system is primarily used to measure a material's or assembly's property to resist the transmission of sound.

In order to reconcile the discrepancy between the special inspection requirement of section BC 1704.15.2, item 8 and section MC 926, section MC 926 shall be deemed as the measurement standard for special inspections of noise producing exterior mechanical equipment located within 100 feet of a habitable room window.

The special inspector shall verify that the manufacturer's literature complies with Table MC 926.1(1), or shall measure the sound power level within the habitable room per Table MC 926.1(2)

**III. Noise control requirements of the Department of Environmental Protection.** The requirements of the Building Code and the Mechanical Code shall not be construed to supersede the requirements of the New York City Noise Control Code, Title 24 of the Administrative Code of New York, section 24-232. Where there is conflict or inconsistency between the requirement of the Building Code, Mechanical Code and the New York City Noise Control Code, such conflict shall be resolved in favor of the more restrictive requirement.